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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 15

Application Number: 09/275,273
Filing Date: March 23, 1999
Appellant(s): HART ET AL.

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Technology Center 2100

Lisa Tom
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9/24/02.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

The rejection of claims 1-18 stand or fall together because appellant's brief includes a statement that this grouping of claims stand or fall together. See 37 CFR 1.192(c)(7).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

4,766,364	Biamonte et al	8-1988
6,268,716	Burstein et al	7-2001
6,191,943	Tracy	2-2001

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-7 and 10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biamonte et al PN 4,766,364 in view of Burstein et al PN 6,268,716.

In regards to claims 1, 11 and 15: Biamonte et al teaches a circuit comprising: a primary voltage regulator (Master voltage regulator) coupled to an electrical load (load) and to a power supply (high voltage input) to provide a first amount of power, the primary voltage regulator (master) to detect power supplied to the electrical load and to control one or more additional voltage regulators (slave voltage regulators); and a secondary voltage regulator (one of the slave voltage regulators) coupled to the electrical load, to the power supply, and to the first voltage regulator (via the control signal from the master and the local error signals), the secondary voltage regulator to provide a second amount of power, the secondary voltage regulator generating a signal (the local error signal) to indicate when power is supplied by the secondary voltage regulator Biamonte et al does not teach sending the signal to the master control or the signal being status such as whether the regulator is enabled. Burstein et al teaches returning status information including how much current the regulator can supply. It would have been

obvious to a person of ordinary skill in the art to return the local status information (such as the local error signal and/or current capabilities) to the master controlling regulator because this would have provided greater control and accuracy in current regulation. Burstein et al does not expressly teach the status information including whether the regulator is enabled. Official notice is taken that whether a device is enabled is an important bit of status information. It would have been obvious to include whether the device is enabled because this would have provided greater control and accuracy in current regulation.

In regards to claim 2: Biamonte et al teaches the secondary voltage regulator including circuitry (the steering circuitry within the slaves see abstract) to control one or more additional voltage regulators (the master voltage regulator in the event of an error in the master).

In regards to claims 3, 13 and 17: Biamonte et al teaches a third voltage regulator (one of the other slave voltage regulators See figure 3) coupled to the power supply, to the electrical load, and to the secondary voltage regulator (via the control signal coupling the master and all the slave voltage regulators) to supply a third amount of power.

In regards to claim 4: Biamonte et al teaches a third voltage regulator (one of the other slave voltage regulators See figure 3) coupled to the power supply, to the electrical load, and to the primary voltage regulator (via the control signal coupling the master and all the slave voltage regulators) to supply a third amount of power.

In regards to claim 5: Biamonte et al teaches the redundant voltage regulators as described above. Biamonte et al does not teach the load being in a processing system and system board. Official notice is taken that computers with processors exist that use power supplies are well known in the art. It would have been obvious to a person of ordinary skill in the art at the

time of the invention to use the system of Biamonte et al in a processing system because this would have provided redundant power to a processing system.

In regards to claim 6: Biamonte et al teaches a control signal indicating that the second power regulator is supplying power (the local error signal).

In regards to claim 7: Biamonte et al teaches a tertiary power regulator. Biamonte et al does not teach the third power regulator being in a docking station. Official notice is taken that docking stations with their own power supplies are well known in the art. It would have been obvious to a person of ordinary skill in the art at the time of the invention to include a docking station in the computer system in which Biamonte et al is used.

In regards to claims 10, 12, 14 and 18: Biamonte teaches activating voltage regulators via a command but does not teach the command being PWM. Official notice is taken that PWM commands are very well known in the art. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use PWM commands because these are a simple command structure.

3. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biamonte et al PN 4,766,364 in view of Burstein et al PN 6,268,716 as applied to claim 1 above and further in view of Tracy PN 6,191,943.

In regards to claim 8: Biamonte et al does not teach thermal heat dissipation for the docked third voltage regulator. Tracy teaches active heat dissipation for the docked notebook. It would have been obvious to add heat dissipation because this would have protected the notebook from overheating.

In regards to claim 9: Biamonte et al teaches indicating when the third voltage regulator is supplying power.

(11) Response to Argument

In regards to applicants repeated argument that neither Biamonte et al nor Burstein et al teaches a second voltage regulator sending a signal to a primary voltage regulator indicating whether the second the second voltage regulator is enabled. The examiner never stated that either reference teaches this feature only that Burstein et al teaches a second voltage regulator sending status information to a primary voltage regulator. And that whether a device is enabled is common status information. Official notice was taken that whether a device is enabled is an important bit of status information. It would have been obvious to include whether the device is enabled because this would have provided greater control and accuracy in current regulation.

"Not only the specific teachings of a reference but also reasonable inferences which the artisan would have logically drawn therefrom may be properly evaluated in formulating a rejection." *In re Preda*, 401 F.2d 825, 159 USPQ 342 (CCPA 1968) and *In re Shepard* 319 F.2d 194, 138 USPQ 148 (CCPA 1963).

"Furthermore, artisans must be presumed to know something about the art apart from what the references disclose." *In re Jacoby*, 309 F.2d 513, 135 USPQ 317 (CCPA 1962).

"The conclusion of obviousness may be made from common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference." *In re Bozek*, 416 F.2d 1385, 163 USPQ 545 (CCPA 1969).

"Every reference relies to some extent on knowledge of persons skilled in the art to complement that which is disclosed therein." *In re Bode*, 550 F.2d 656, 193 USPQ 12 (CCPA 1977).

In regards to applicants argument that the Burstein et al reference discloses a system returning information regarding current passing through the system not whether the second voltage regulator is enabled. The examiner notes that a person of ordinary skill in the art at the time of the invention would recognize that if the regulator is not enabled the current flow through it would be zero. Also the current through it will remain zero no matter how the system is adjusted unless the second regulator becomes enabled. Thus whether the second regulator is enabled would be very important status information in current flow control. Again "Not only the specific teachings of a reference but also reasonable inferences which the artisan would have logically drawn therefrom may be properly evaluated in formulating a rejection." *In re Preda*, 401 F.2d 825, 159 USPQ 342 (CCPA 1968) and *In re Shepard* 319 F.2d 194, 138 USPQ 148 (CCPA 1963).

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"The conclusion of obviousness may be made from common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference." *In re Bozek*, 416 F.2d 1385, 163 USPQ 545 (CCPA 1969).

"Every reference relies to some extent on knowledge of persons skilled in the art to complement that which is disclosed therein." *In re Bode*, 550 F.2d 656, 193 USPQ 12 (CCPA 1977).

In response to appellants argument that there is no suggestion to modify or combine the references in the manner states in the office action. The test of obviousness is:

"whether the teachings of the prior art, taken as a whole, would have made obvious the claimed invention," *In re Gorman*, 933 F.2d at 986, 18 USPQ 2d at 1888.

> Subject matter is unpatentable under section 103 if it "'would have been obvious . . . to a person having ordinary skill in the art.' While there must be some teaching, reason, suggestion, or motivation to combine existing elements to produce the claimed device, it is not necessary that the cited references or prior art specifically suggest making the combination." *In re Nilssen*, 851 F.2d 1401, 1403, 7 USPQ 2d 1500, 1502 (Fed. Cir. 1988).
>
> "Such suggestion or motivation to combine prior art teachings can derive solely from the existence of a teaching, which one of ordinary skill in the art would be presumed to know, and the use of that teaching to solve the same [or] similar problem which it addresses." *In re Wood*, 599 F.2d 1032, 1037, 202 USPQ 171, 174 (CCPA 1979).
>
> "In sum, it is off the mark for litigants to argue, as many do, that an invention cannot be held to have been obvious unless a suggestion to combine prior art teachings is found *in* a specific reference."
>
> Entire quote from *In re Oetiker*, 24 USPQ 2d 1443 (CAFC 1992).

Accordingly, it is not required to disclose or specifically suggest particular elements. Instead the measure is what the teachings would suggest to one of ordinary skill in the art, not what the art specifically suggests.

Since the Official notice was never challenged the examiner accepts this as the agreement of the appellants that whether a device is enabled is common information to return to a

controlling system and the examiner will not bother to cite any reference that teaches this agreed upon common feature.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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PRIMARY EXAMINER
PRM
October 8, 2002

Conferees

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